



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,123	01/03/2006	Yoichiro Terasawa	OMY-0051	1190
23353 7590 10/12/2010 RADER FISHMAN & GRAUER PLLC LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON, DC 20036			EXAMINER CHEN, QING	
			ART UNIT 2191	PAPER NUMBER
			MAIL DATE 10/12/2010	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/563,123

Applicant(s)

TERASAWA, YOICHIRO

Examiner

Qing Chen

Art Unit

2191

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/225)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

1. This Office action is in response to the amendment filed on September 17, 2010.
2. **Claims 13-32** are pending.
3. **Claims 1-12** have been canceled.
4. **Claims 13-32** have been added.
5. The objection to the title is withdrawn in view of Applicant's amendments to the title.
6. The objection to the abstract is maintained in view of Applicant's amendments to the abstract and further explained hereinafter.
7. The objections to Claims 1-12 are withdrawn in view of Applicant's cancellation of the claims.
8. The 35 U.S.C. § 112, second paragraph, rejections of Claims 1-10 and 12 are withdrawn in view of Applicant's cancellation of the claims.
9. The 35 U.S.C. § 101 rejections of Claims 1-7 and 12 are withdrawn in view of Applicant's cancellation of the claims.

Specification

10. The substitute specification filed on September 17, 2010 has been entered.

Response to Amendment

Specification

11. The abstract of the disclosure is objected to because it contains drawing reference numbers. Correction is required. See MPEP § 608.01(b).

Claim Objections

12. **Claims 18, 23, 26-28, and 30** are objected to because of the following informalities:
- Claim 18 recites the limitation “the modules.” It should presumably read -- the list of modules --.
 - Claim 23 contains the following typographical errors:
 - “[I]s from the group” should read -- *is selected* from the group --.
 - The letter “i” in “internet” should be capitalized.
 - Claim 26 recites the limitation “said each of the module-storing regions.” It should presumably read -- each of the module-storing regions --.
 - Claim 27 contains a typographical error: The word “and” should be added after the “obtaining a list of modules [...]” limitation.
 - Claim 28 recites the limitation “said user identification information.” It should read -- said user identification --.
 - Claim 30 recites the limitation “the module.” It should read -- the *skipped* module --.
- Appropriate correction is required.

Claim Rejections - 35 USC § 112

13. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. **Claims 27-32** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 27-29 and 31 recite the limitation “said user computer.” There is insufficient antecedent basis for this limitation in the claims. In the interest of compact prosecution, the Examiner subsequently interprets this limitation as reading “a user computer” for the purpose of further examination.

Claims 30 and 32 depend on Claim 27 and, therefore, suffer the same deficiency as Claim 27.

Claim Rejections - 35 USC § 101

15. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

16. **Claims 27-31** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 27 is directed to a method. However, the claim does not explicitly recite or inherently require a particular machine for performing the recited steps of the method. The recited steps of the method could be manually performed under the broadest reasonable

interpretation. The claim does not provide any clarification on how a computer is structurally and functionally interrelated for performing the method. Therefore, the claimed method is ineligible subject matter under § 101.

Claims 28-31 depend on Claim 27 and do not cure the deficiency of Claim 27. Therefore, Claims 28-31 are rejected for the same reason set forth in the rejection of Claim 27.

Claim Rejections - 35 USC § 102

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

18. **Claims 13, 14, 16-28, 31, and 32** are rejected under 35 U.S.C. 102(b) as being anticipated by US 2002/0166001 (hereinafter “Cheng”).

As per Claim 13, Cheng discloses:

An information processing apparatus (Abstract, “A system ...”) **comprising:**

- **a user computer** (Figure 1: 101) **configured to obtain a list of modules from a module-storing region, a module identified in said list of modules being software** (paragraph [0100], “The client computer 101 accesses the identified URL(s) and downloads [obtains] the software update files [list of modules], typically from the software vendor computer 103 [module-storing region], though downloads may be from mirror sites, or the like.”),

- **wherein said user computer obtains a new module from said module-storing region when said new module is absent from said user computer** (paragraph [0097], “In either cases, the service provider computer 102 determines if there is an applicable update for a software product by comparing the product name 815 and release information 818 to the product table 805 ... If there is an update available [new module is absent from said user computer] ...”; paragraph [0100], “The client computer 101 accesses the identified URL(s) and downloads [obtains] the software update files [new module], typically from the software vendor computer 103 [module-storing region], though downloads may be from mirror sites, or the like.”), **said new module being identified in said list of modules** (paragraph [0099], “... the system analyzer 907 will have a list 1007 of the applicable software updates ...”).

As per Claim 14, the rejection of Claim 13 is incorporated; and Cheng further discloses:

- **wherein said user computer obtains an updated module from said module-storing region when said updated module is a more recent version of a module stored in the user computer** (paragraph [0097], “If there is an update available, in that the release information in the table indicates a version later than the version [more recent version of a module] that is installed on the client computer 101 ...”; paragraph [0100], “The client computer 101 accesses the identified URL(s) and downloads [obtains] the software update files [updated module], typically from the software vendor computer 103, though downloads may be from mirror sites, or the like.”), **said updated module being identified in said list of modules** (paragraph [0099], “... the system analyzer 907 will have a list 1007 of the applicable software updates ...”).

As per Claim 16, the rejection of Claim 13 is incorporated; and Cheng further discloses:

- **wherein one of a plurality of user computers is a master machine, others of said plurality of user computers linking with said master machine** (Figure 1; paragraph [0043], "... there are a plurality of client computers 101 communicatively coupled [linking] by a network 106 to a service provider computer 102 [master machine].").

As per Claim 17, the rejection of Claim 16 is incorporated; and Cheng further discloses:

- **wherein said user computer is from said plurality of user computers, an IP address of said master machine being stored within said user computer** (Figure 1; paragraph [0046], "Each computer 101, 102, 103 has a IP address that specifies its location on the network 106 ...").

As per Claim 18, the rejection of Claim 13 is incorporated; and Cheng further discloses:

- **wherein said list of modules is updated when another of the list of modules is stored within said module-storing region, said list of modules being updated within said module-storing region** (paragraph [0121], "The database modification tools 707 provide for the maintenance and updating of the update database 709 to include new software updates from various software vendors."; paragraph [0123], "As new software updates become available, either the service provider or the software vendors access the database modification tools 707 to update the database.").

As per Claim 19, the rejection of Claim 13 is incorporated; and Cheng further discloses:

- **wherein said module-storing region is one of a plurality of module-storing regions, location information identifying said module-storing region from said plurality of module-storing regions** (Figure 1; paragraph [0056], “This downloading may be directly from the software vendor computer 103, using the URL data [location information] stored in the service provider computer 102 for the location of the software update on the network 106.”).

As per Claim 20, the rejection of Claim 19 is incorporated; and Cheng further discloses:

- **wherein said location information includes a Uniform Resource Locator for each module-storing region in said plurality of module-storing regions** (paragraph [0056], “This downloading may be directly from the software vendor computer 103, using the URL data stored in the service provider computer 102 for the location of the software update on the network 106.”).

As per Claim 21, the rejection of Claim 19 is incorporated; and Cheng further discloses:

A software updating system (Abstract, “A system ... update client computers ...”) **comprising:**

- **the information processing apparatus as set forth in claim 19** (*see 35 U.S.C. § 102(b) rejections of Claim 13 and 19 hereinabove*); **and**

- **a center computer, the user computer obtaining a list of module-storing regions from said center computer** (paragraph [0100], “The service provider computer 102 [center computer] resolves the update ID 819 against the update table 807 to obtain the record for this update, including the URL list 823 [list of module-storing regions] identifying the location of the

relevant update files. This record is returned to the client computer 101 [the user computer obtaining].”),

- **wherein the location information is recorded within said list of module-storing regions** (paragraph [0100], “The service provider computer 102 resolves the update ID 819 against the update table 807 to obtain the record for this update, including the URL [location information] list 823 identifying the location of the relevant update files. This record is returned to the client computer 101.”).

As per Claim 22, the rejection of Claim 21 is incorporated; and Cheng further discloses:

- **wherein said user computer communicates with said module-storing region and said center computer over a network, said center computer communicating with said module-storing region over said network** (Figure 1; paragraph [0043], “... there are a plurality of client computers 101 [user computers] communicatively coupled by a network 106 to a service provider computer 102 [center computer]. A number of software vendor computers 103 [module-storing regions] are also communicatively coupled over the network 106 to the service provider computer 102.”).

As per Claim 23, the rejection of Claim 22 is incorporated; and Cheng further discloses:

- **wherein said network is selected from the group consisting of a local area network, a wide area network and the Internet** (paragraph [0043], “The network 106 is preferably the Internet, or other similar wide area network.”).

As per Claim 24, the rejection of Claim 22 is incorporated; and Cheng further discloses:

- **wherein said user computer sends user identification information onto said network, said user identification information identifying said user computer** (paragraph [0050], “In each case, the user logs in 201 to the service provider computer 102 with the client application 104 in a conventional manner, providing a user ID, a password, and the like. This information may be manually entered by the user via the client application 104, or more preferably, stored within the client application 104, and automatically provided [sent] once a connection between the client computer 101 [user computer] and service provider computer 102 is established.”).

As per Claim 25, the rejection of Claim 24 is incorporated; and Cheng further discloses:

- **wherein said center computer compiles said list of the module-storing regions when said user computer is judged as having a license, said center computer using said user identification information in judging whether said user computer has said license** (paragraph [0051], “The registered users are authenticated 203 by the service provider computer 102, using conventional authentication mechanisms, such one or more passwords, digital signature, certificates [licenses], or the like. Authentication ensures that only users who are properly authorized by the service provider can obtain [compile] updates for software products.”).

As per Claim 26, the rejection of Claim 25 is incorporated; and Cheng further discloses:

- wherein said location information corresponds to each of the module-storing regions, said each of the module-storing regions being linked to said user identification information (paragraph [0056], “For each selected software update, the client application 104 performs an installation process 208. Referring to FIG. 5, the client application 104 displays information 505 for a selected software update, and provides the user the opportunity to confirm 501 or cancel 503 the installation ... This downloading may be directly from the software vendor computer 103 [each of the module-storing regions], using the URL data [location information] stored in the service provider computer 102 for the location of the software update on the network 106.”).

As per Claim 27, Cheng discloses:

A method of updating a software installed in an information processing apparatus (Abstract, “A ... method update client computers of various end users with software updates for software products installed on the client computers ...”), **the method comprising the steps of:**

- obtaining a list of module-storing regions from a center computer, said list of the module-storing regions including location information (paragraph [0100], “The service provider computer 102 [center computer] resolves the update ID 819 against the update table 807 to obtain the record for this update, including the URL list 823 [list of module-storing regions] identifying the location of the relevant update files. This record is returned to the client computer 101 [obtaining].”);

- obtaining a list of modules from one of the module-storing regions, said location information differentiating said one of the module-storing regions from a plurality of the

module-storing regions (paragraph [0100], “The client computer 101 accesses the identified URL(s) and downloads [obtains] the software update files [list of modules], typically from the software vendor computer 103 [one of the module-storing regions], though downloads may be from mirror sites, or the like.”); and

- **obtaining a new module from said one of the module-storing regions when said new module is absent from a user computer, said new module being identified in said list of modules** (paragraph [0097], “In either cases, the service provider computer 102 determines if there is an applicable update for a software product by comparing the product name 815 and release information 818 to the product table 805 ... If there is an update available [new module is absent from said user computer] ...”; paragraph [0100], “The client computer 101 accesses the identified URL(s) and downloads [obtains] the software update files [new module], typically from the software vendor computer 103 [one of the module-storing regions], though downloads may be from mirror sites, or the like.”),

- **wherein said new module is the software** (paragraph [0100], “The client computer 101 accesses the identified URL(s) and downloads the software update files [new module], typically from the software vendor computer 103, though downloads may be from mirror sites, or the like.”).

As per Claim 28, the rejection of Claim 27 is incorporated; and Cheng further discloses:

- **sending user identification to said center computer, said user identification identifying said user computer** (paragraph [0050], “In each case, the user logs in 201 to the service provider computer 102 with the client application 104 in a conventional manner,

providing a user ID, a password, and the like. This information may be manually entered by the user via the client application 104, or more preferably, stored within the client application 104, and automatically provided [sent] once a connection between the client computer 101 [user computer] and service provider computer 102 is established.”),

- **wherein said center computer compiles said list of the module-storing regions when said user computer is judged as having a license, said center computer using said user identification in judging whether said user computer has said license** (paragraph [0051], “The registered users are authenticated 203 by the service provider computer 102, using conventional authentication mechanisms, such one or more passwords, digital signature, certificates [licenses], or the like. Authentication ensures that only users who are properly authorized by the service provider can obtain [compile] updates for software products.”).

As per Claim 31, the rejection of Claim 27 is incorporated; and Cheng further discloses:

- **obtaining an updated module from said one of the module-storing regions when said updated module is a more recent version of a module stored in the user computer** (paragraph [0097], “If there is an update available, in that the release information in the table indicates a version later than the version [more recent version of a module] that is installed on the client computer 101 ...”; paragraph [0100], “The client computer 101 accesses the identified URL(s) and downloads [obtains] the software update files [updated module], typically from the software vendor computer 103, though downloads may be from mirror sites, or the like.”), **said updated module being identified in said list of modules** (paragraph [0099], “... the system analyzer 907 will have a list 1007 of the applicable software updates ...”),

- **wherein said updated module is the software** (paragraph [0100], “The client computer 101 accesses the identified URL(s) and downloads the software update files [updated module], typically from the software vendor computer 103, though downloads may be from mirror sites, or the like.”).

As per Claim 32, the rejection of Claim 27 is incorporated; and Cheng further discloses:

- **A computer program product embodied in a tangible non-transitory computer readable medium, the computer program product being configured to perform the method of claim 27** (paragraph [0087], “... the client computer 101 executes the client application 104 in memory 900.”).

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. **Claims 15 and 29** are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng in view of US 2002/0120885 (hereinafter “Choi”).

As per Claim 15, the rejection of Claim 13 is incorporated; and Cheng does not explicitly disclose:

- wherein said user computer deletes the name of a skipped module from said list of modules, said name of the skipped module being listed within said user computer.

However, Choi discloses:

- wherein a user computer deletes the name of a skipped module, said name of the skipped module being listed within said user computer (paragraph [0040], "On the other hand, the upgrade processing unit 600 questions the user through the information displaying means, such as the On Screen Display (OSD) that, "Will you install a new software?" and at this time, if the user answers that "No", the upgrade processing unit 600 [user computer] deletes the code of the downloaded system software [skipped module] and gives up upgrading (S15) (emphasis added).").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Choi into the teaching of Cheng to include wherein said user computer deletes the name of a skipped module from said list of modules, said name of the skipped module being listed within said user computer. The modification would be obvious because one of ordinary skill in the art would be motivated to allow a user to delete a software update from the various software updates that the user does not want to install.

As per Claim 29, the rejection of Claim 27 is incorporated; and Cheng does not explicitly disclose:

- deleting the name of a skipped module from said list of modules, said name of the skipped module being listed within said user computer.

However, Choi discloses:

- **deleting the name of a skipped module, said name of the skipped module being listed within a user computer** (paragraph [0040], "On the other hand, the upgrade processing unit 600 questions the user through the information displaying means, such as the On Screen Display (OSD) that, "Will you install a new software?" and at this time, if the user answers that "No", the upgrade processing unit 600 [user computer] deletes the code of the downloaded system software [skipped module] and gives up upgrading (S15) (emphasis added).").

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Choi into the teaching of Cheng to include deleting the name of a skipped module from said list of modules, said name of the skipped module being listed within said user computer. The modification would be obvious because one of ordinary skill in the art would be motivated to allow a user to delete a software update from the various software updates that the user does not want to install.

21. **Claim 30** is rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng in view of Choi as applied to Claim 29 above, and further in view of US 2004/0158829 (hereinafter "Beresin").

As per Claim 30, the rejection of Claim 29 is incorporated; and Cheng and Choi do not explicitly disclose:

- **wherein the step of deleting the name of the skipped module is performed before the step of obtaining the new module.**

However, Beresin discloses:

- wherein a step of deleting the name of a module is performed before a step of obtaining a new module (paragraph [0026], “For example, before downloading football application 214, synchronization management agent 112 may delete spider application 206 in order to free enough space in memory 114. After deletion of the selected file(s) from memory 114 of mobile terminal 100, the synchronization management agent 112 sends to the server 102 a request to transmit the required file (emphasis added).”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Beresin into the teaching of Cheng to include wherein the step of deleting the name of the skipped module is performed before the step of obtaining the new module. The modification would be obvious because one of ordinary skill in the art would be motivated to download only the software updates that a user would want to install.

Response to Arguments

22. Applicant’s arguments filed on September 17, 2010 have been fully considered, but they are not persuasive.

In the Remarks, Applicant argues:

a) However, Cheng fails to disclose, teach, or suggest the client computer 101 obtaining software from the service provider computer 102 when new software is absent from the client computer 101.

Examiner's response:

a) Examiner disagrees. With respect to the Applicant's assertion that Cheng fails to disclose, teach, or suggest the client computer obtaining software from the service provider computer when new software is absent from the client computer, the Examiner respectfully submits that Cheng clearly discloses **"wherein said user computer obtains a new module from said module-storing region when said new module is absent from said user computer"** (paragraph [0097], "In either cases, the service provider computer 102 determines if there is an applicable update for a software product by comparing the product name 815 and release information 818 to the product table 805 ... If there is an update available [new module is absent from said user computer] ..."; paragraph [0100], "The client computer 101 accesses the identified URL(s) and downloads [obtains] the software update files [new module], typically from the software vendor computer 103 [module-storing region], though downloads may be from mirror sites, or the like.""). Note that the service provider computer determines if there is an update available for a software product and if there is an update available, the user can download the update. In other words, based on the determination made by the service provider computer, the update for the software product is absent in the client computer.

Therefore, for at least the reason set forth above, the rejections made under 35 U.S.C. § 102(b) with respect to Claims 13 and 27 are proper and therefore, maintained.

Conclusion

23. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

24. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

25. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Qing Chen whose telephone number is 571-270-1071. The Examiner can normally be reached on Monday through Thursday from 7:30 AM to 4:00 PM. The Examiner can also be reached on alternate Fridays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Wei Zhen, can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Q. C./

Examiner, Art Unit 2191

/Anna Deng/

Primary Examiner, Art Unit 2191